United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

ENVIRONMENTAL ASSESSMENT
EA# NM-060-01-097

WELL NAME & NO.: Long Arroyo "WH" Federal #2
BLM Serial #: NM-18612

Section 11, T. 14 S., R. 27 E., NMPM,
660' FSL & 660' FEL, Unit Letter P

Chaves County, New Mexico

OPERATOR: Yates Petroleum Corporation

ACTION: Application for Permit to Drill

SURFACE/MINERAL ESTATE: Federal - Minerals/Surface

I. Introduction

A. Need for the Proposed Action:

Yates Petroleum Corporation proposes to drill and complete a natural gas well at the above described location. The proposed action is needed to develop the mineral lease.

B. Conformance with Land Use Plan:

Oil and gas leasing and development is addressed in the Roswell Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement, January 1997, and is in conformance with the Roswell Approved Resource Management Plan and Record of Decision, October 1997.

C. Relationship to Statutes, Regulations, or other Plans:

The proposed action does not conflict with any known State or local planning, ordinance or zoning.

II. Proposed Action and Alternatives

A. Proposed Action:

Yates Petroleum Corporation submitted Notices of Staking on 2/20, 2001, to drill the Long Arroyo "WH" Federal #2 gas well. The Application for Permit to Drill was submitted on March 27, 2001.

The proposed action would include:

1. The construction of approximately 400 feet of new access road, starting from an existing access road to the southwest corner of the proposed well pad. All other existing access roads would be maintained in as good or better condition than were existing at the commencement of operations.

2. The construction of the proposed well pad would be 325 feet long by 185 feet wide. The construction of the reserve pit would be about 175 feet by 150 feet and dug 4 feet below ground level. The reserve pit would be located on the west, side of the drill pad. Standard oilfield construction equipment consisting of; track-type tractors, motor graders, dump trucks, and water trucks would be used to construct the access road and well pad. A rotary drilling rig would be used to drill the well to a depth of 8,135 feet. Associated production facilities (e.g., separator, storage tanks, etc.) would be installed during the production phase of this well. Topsoil would be stockpiled for future use over the disturbed areas.

3. Surfacing material (caliche/gravel) needed for the construction of the access road and well pad could be obtained by the operator from a federal pit in the NE¼NE¼ of Section 14 - T. 14 S. - R. 27 E., Chaves County, New Mexico.

B. Alternatives:

1. Relocate the Proposed Action:

The well location is determined on the basis of subsurface geologic information and by spacing regulations imposed by the New Mexico Oil Conservation District II. No other alternative location would have significantly fewer impacts than, or have a clear advantage over, the proposed location. Therefore, the alternative of changing the location involved in this action is not analyzed further in this EA.

2. No Action:

Under this alternative, the application would be rejected. None of the environmental impacts associated with the proposed action or alternate location would occur. Additionally, economic benefits of the proposed action would not be realized, and the existing environment, including the developments in place, would remain unchanged.

III. Description of the Affected Environment

A. General Setting:

The proposed access road and well pad are located on federal minerals and surface, about 9 miles east of Hagerman, N.M.. The mean annual precipitation is 10 to 12 inches. Historical and present use of the subject lands have been limited to livestock grazing and energy development.

B. Rights of Record:

An inspection of the Master Title Plats and other Bureau records revealed the following title information pertaining to valid existing prior rights on the subject lands:

- Oil and gas leases: NM-18612 - covers lease actions.
- No federally administered rights-of-way would be affected in the project area.
- No mining claims are recorded within Sec. 11, T. 14 S., R. 27 E., NMPM.

C. Affected Resources:

The following critical resources have been evaluated and are either not present or are not affected by the proposed action or the alternatives in this EA:

Areas of Critical Environmental Concern (ACEC's)
Cultural Resources (01-R-**037**-A & B)
Farmlands, Prime/Unique
Floodplains
Native American Religious Concerns
Threatened or Endangered Species (Plants & Animals)
Wastes, Hazardous/Solid
Wetlands and Riparian Zones
Wild & Scenic Rivers
Wilderness

1. Air Quality:

The area of the proposed action is considered a Class II air quality area. A Class II area allows a moderate amount air quality degradation. The primary sources of air pollution are dust from blowing wind on disturbed or exposed soils and exhaust emissions from motorized equipment.

2. Soils:

The proposed action would occur in aeolian and alluvial deposits on uplands east of the Pecos River as described in the Soil Survey of Chaves County, New Mexico, Southern Part (Pages 13 & 66, map #83). The soils of this Sandy (SD-3) range site are sandy loams, loamy fine sands, and fine sandy loams. They are moderately deep to deep and have moderately rapid or moderate permeability. Available water capacity is low to high. The Berino soil is moderate, runoff is very slow. The hazard of water erosion is slight and the hazard of soil blowing is moderate. For the Cacique soil runoff is slow. The hazard of water erosion is slight. The hazard of soil blowing is severe; however, a moderate hazard of soil blowing is common. The soils are found on 0 to5 percent slopes.

3. Vegetation:

The native vegetation in the area is composed of mainly tall and mid grasses, shrubs, and forbs, such as, black grama, blue grama, hairy grama, side-oats grama, javalina bush, bush muhly, plains bristlegrass, yucca, three-awn, winterfat, and dropseeds. There are no known populations of noxious or invasive weed species at the proposed site.

4. Ground Water Quality:

Fresh water sources for livestock and domestic use is anticipated to be encountered between 100 to 1,000 plus feet. Usable water is found in the Alluvium, the Artesia Group, and occasionally in the San Andres formation. The deepest fresh water is about 1,000 feet. Some salt water flows have occurred in the grayburg around the Buffalo Valley area.

5. Wildlife:

Wildlife species utilizing this area for habitat include mule deer, pronghorn antelope, coyote, fox, rabbits, kangaroo rats, pocket gophers, herptile species, as well as a variety of songbirds, dove, quail, and raptors.

No known special status species (plant/animal) or critical habitat are present within the confines of the project area.

6. Range: The well is located on a BLM grazing allotment issued to Bogle Ltd. Company, P.O. Box 460, Dexter, N.M..

7. VRM/Recreation: The proposed action is located in a designated VRM Class IV area. Recreation in the vicinity includes seasonal hunting.

8. Cave/Karst: No surface cave/karst features were observed in the immediate vicinity of the proposed actions. However, the proposed action is located in a medium karst potential area.

9. Minority or Low-income Populations or Communities: The proposed project would not affect the minority or low-income populations or communities.

IV. ENVIRONMENTAL IMPACTS

A. Proposed Action Impacts:

The surface disturbance involved in the construction of the access road, well pad, and reserve pit would total about 2.3 acres of federal surface.

1. Air Quality:

Air quality would temporary be impacted with pollution from exhaust omissions, chemical odors, and dust that would be caused by the motorized equipment used to construct the access road, well pad, and by the drilling rig that will be used to drill the well. Dust dissemination would discontinue upon completion of the construction phase of the road and well pad. The completion of the drilling phase of the operations would drastically reduce the air pollution from the motorized equipment. The winds that frequent the southeastern part of New Mexico generally help in dispersing the odors and omissions. The impacts to the air quality would be greatly reduced as the operational phases of doing business in the gas field are completed.

2. Soils:

The construction of the access road and well pad would physically disturb about 2.3 acres of topsoil material and vegetation. Construction of the reserve pit would affect deeper soil horizons because of the proposed 4-foot depth of the pit. The exposed soils would be susceptible to wind blowing and water erosion. Surfacing the exposed areas would minimize the impacts to the soil. The impact would be remedied upon reclamation when the stockpiled soil would be spread over the disturbed areas to establish a seed bed.

The access road would be impacted when heavy precipitation causes water erosion damage. When water saturated segment(s) on the access road become impassable, vehicles may still be driven over the road. Consequently, deep tire ruts would develop. Where impassable segments are created from deep rutting, unauthorized drive-arounds may occur outside the designated access road. This creates additional soil impacts associated with lease development. Road constructions requirements would alleviate potential impacts to the access road from water erosion damage.

3. Vegetation:

Construction activities for the access road and well pad would remove about 2.3 acres of native vegetation from the site. Vegetation recovery on the site would depend on the life of the well. If drilled as a dry hole and plugged, reclamation of the site would immediately follow. Vegetation impacts would be short-term with the site re-vegetating in a few years, if the surfacing material (caliche) is hauled off or ripped and re-seeded. If it is a producing well, reclamation would not commence until the well is a depleted producer and plugged and abandoned. Native vegetation would encroach on the site over time with only high traffic areas remaining unvegetated.

The construction of an access road and/or well location may unintentionally contribute to the establishment and spread of noxious weeds. Noxious weed seeds could be carried onto the project areas by construction equipment, the drilling rig, and transport vehicles. The main mechanism for seed dispersion on roads and well pads is by equipment and vehicles that were previously used and/or driven over noxious weed infested areas. The potential for the dissemination of invasive and noxious weed seeds may be elevated by the use of construction equipment typically contracted out to companies that may be from other geographic areas in the region. Washing and decontaminating the equipment prior to transporting the equipment on site

4. Ground Water Quality:

The use of a plastic-lined reserve pit would reduce or eliminate seepage of drilling fluid into the soil and eventually reaching groundwater. Spills or produced fluids (e.g., saltwater, oil, and/or condensate in the event of a breech, overflow, or spill from storage tanks) could result in contamination of the soils onsite, or offsite, and may potentially impact groundwater resources in the long term. The casing and cementing requirements imposed on the proposed well would reduce or eliminate the potential for groundwater contamination from subsurface sources.

5. Wildlife:

Some small wildlife species may be killed and their dens or nests destroyed during construction of the well. The construction of the access road and well pad could cause fragmentation of wildlife habitat. The short term negative impact to wildlife would occur during the construction

phase of the operation due to noise and habitat destruction. In general, most wildlife species would become habituated to the new facilities. For other wildlife species with a low tolerance to activities, the site would continue to displace wildlife from the area due to ongoing disturbances such as vehicle traffic and equipment maintenance. The conditions of approval would alleviate most losses of wildlife species, such as fencing off reserve pits, netting storage tanks, installation or other modifications of cones on separator stacks, and timing stipulations. Upon abandonment of the well, the area would revegetate and wildlife would return to previous levels.

6. Range: There would be some minor disruption of livestock grazing in the pasture, specifically at the well pad location, during the construction and drilling phase of the well.

7. VRM/Recreation:

The construction of the access road, well pad, and other ancillary facilities would slightly modify the existing visual resources of the area. After the well is completed the view should return to the form, line, color, and texture of the existing landscape. The access road and well pad would blend in with other oil and gas facilities in the area that were constructed within the VRM Class IV designation.

8. Cave/karst: There would be no impact to known cave entrances, or karst features within the project area.

9. Minority or Low-income Populations or Communities: The proposed project would not impact the minority or low-income populations or communities.

B. Alternatives:

1. Relocation Alternative:

The alternative of changing the location involved in this action was not analyzed further because no other alternative location would have significantly fewer impacts than, or have a clear advantage over, the proposed location.

2. No Action Alternative:

The no action alternative would constitute denial of the application. This alternative would result in none of the identified environmental impacts. There would, however, be an adverse economic impact to the applicant through the denial of the lessee's right to develop the mineral reserves or through increased costs of accessing those mineral reserves through other means. There have been no significant or unmitigatable impacts identified as a result of this analysis which would warrant selection of the no action alternative.

C. Mitigation:

The Roswell Field Office; Well Drilling Requirements (Exhibit B), Conditions of Approval (Exhibit C), Permanent Resource Road Requirements (Exhibit D), and the special requirements derived from this EA, would be applied to this proposed action to minimize the surface disturbance and conserve the surrounding landscape.

D. Cumulative Impacts:

While it is likely that there will be no significant cumulative impact from the proposed action, continued oil and gas development, and other surface-disturbing activities in this area, may potentially have negative cumulative impacts on vegetation, soil, water, livestock, and wildlife.

V. Consultation and Coordination

An onsite inspection was conducted on the access road and well pad on 4/5, 2001. In attendance were Pat Perez and Cy Cowan, Regulatory Agent's for Yates Petroleum Corporation, and Richard Hill, Environmental Protection Specialist, BLM, Roswell Field Office. Coordination and consultation has occurred with the applicant's agent. The comments and suggestions expressed during the onsite consultation have been incorporated into this EA.

Coordination and consultation has occurred with Roswell Field Office staff specialist. The comments and suggestions expressed during the review of the proposed action and environmental assessment have been incorporated into this EA.

Reviewed by:

Irene Salas, Realty Specialist 5-18-01 **Date**

FINDING OF NO SIGNIFICANT IMPACT
AND DECISION RECORD
EA-NM-060-01-097

DECISION: It is my decision to authorize the Application For Permit To Drill Or Deepen (APD), for the **Long Arroyo "WH" Federal #2** gas well, submitted by **Yates Petroleum Corporation**. The provisions for the approval of the APD will include the attachment of the Roswell Field Office requirements as defined in the following exhibits; **Exhibit A** - Location Map, **Exhibit B** - Well Drilling Requirements, **Exhibit C** - Conditions of Approval, **Exhibit D** - Permanent Resource Road Requirements, and special mitigating measures developed in the environmental assessment.

In the event the well proves to be a dry hole, or when the well is abandoned, I recommend that reclamation requirements be attached to the well abandonment, including additional requirements imperative for the complete reclamation of the disturbed areas. These actions are subject to 43 CFR 3160 regulations for Onshore Oil and Gas operations on federal lease NM-18612.

Authority for these actions is the Mineral Leasing Act of February 25, 1920, as amended.

These actions will affect public lands described as:

New Mexico Principal Meridian

Section 11; SE¼SE¼, T. 14 S., R. 27 E.
660' FSL & 660' FEL

FINDING OF NO SIGNIFICANT IMPACT: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts resulting from the proposed actions are not expected to be significant and an environmental impact statement is not required.

RATIONALE FOR DECISION: The proposed actions would not result in any undue or unnecessary environmental degradation. Portions of the subject lands and adjacent lands have been used for similar purposes and all present and potential uses and users have been considered.

COMPLIANCE AND MONITORING: The construction phase of the proposed actions and subsequent operational phases will be monitored as per regulations.

Larry D. Bray

Larry D. Bray, Assistant Field Manager,
Lands and Minerals

5/24/01
Date